

- 57 2. The hydrogel of claim 1, wherein the ratio of multi-olefinic crosslinking agent to monomer is in the range of 0.01:100 to 10:100.
- 58 3. The hydrogel of claim 1, wherein the at least one ethylenically-unsaturated monomer is selected from the group consisting of (meth)acrylic acid, salts of (meth)acrylic acid, esters of (meth)acrylic acid, salts and acids of esters of (meth)acrylic acid, amides of (meth)acrylic acid, N-alkyl amides of (meth)acrylic acid, salts and acids of N-alkyl amides of (meth)acrylic acid, N-vinyl pyrrolidinone, acrylamide, acrylamide derivatives, methacrylamide, methacrylamide derivatives, and mixtures thereof.
- 59 4. The hydrogel of claim 1, wherein the at least one ethylenically-unsaturated monomer is selected from the group consisting of acrylamide (AM), N-isopropylacrylamide (NIPAM), 2-hydroxyethyl methacrylate (HEMA), 2-hydroxypropyl methacrylate (HPMA), N-vinyl pyrrolidinone (VP), acrylic acid (AA), 2-acrylamido-2-methyl-1-propanesulfonic acid (AMPS), 3-sulfopropyl acrylate potassium salt (SPAK), 2-(acryloyloxy)ethyltrimethylammonium methyl sulfate (ATMS), inorganic salts thereof, and mixtures thereof.

60. The hydrogel of claim 1, wherein the crosslinking agent is selected from the group consisting of N,N'-methylene-bisacrylamide, ethylene glycol di(meth)acrylate, piperazine diacrylamide, glutaraldehyde, epichlorohydrin, crosslinking agents containing 1,2-diol structures, crosslinking agents containing functionalized peptides, and crosslinking agents containing proteins.

61. The hydrogel of claim 1, which has a swelling ratio in the range of 2 to 1,000.

62. The hydrogel of claim 1, which has a compression modulus in the range of 0.01 to 5 kg/cm².

63. The hydrogel of claim 1, which has a swelling time in the range of 10 seconds to 10 hours for a sample having a size in the range of 0.01 cm³ and larger.

64. A method for treating a disease or disorder in a human or animal patient, said method comprising introducing onto or into the body of said patient a quantity of a hydrogel material comprising a crosslinked polymer, which hydrogel material has an average pore size of 10 μm to 3000 μm.

- ⁶⁵~~10~~. The method of claim 9, wherein said hydrogel material further comprises particles of a disintegrant disposed within said crosslinked polymer.
- ⁶⁶~~11~~. The method of claim 10, wherein said disintegrant is at least one of (i) a crosslinked natural or synthetic polyelectrolyte, (ii) a crosslinked neutral hydrophilic polymer, (iii) a non-crosslinked natural or synthetic polyelectrolyte having a particulate shape, (iv) a non-crosslinked neutral hydrophilic polymer having a particulate shape, or (v) a porous inorganic material that provides wicking by capillary forces.
- ⁶⁷~~12~~. The method of claim 9, wherein said hydrogel material further comprises an effective amount of a therapeutic agent.
- ⁶⁸~~13~~. The method of claim 9, wherein said hydrogel material is introduced into a bleeding site to thereby control bleeding.
- ⁶⁹~~14~~. The method of claim 9, wherein said hydrogel material is introduced into the stomach to thereby control appetite.)
- ⁷⁰~~15~~. The method of claim 9, wherein the hydrogel material forms at least a portion of an artificial body part that is introduced into the body, said artificial body part being selected from the

group consisting of artificial pancreas, artificial cornea, artificial skin, and artificial articular cartilage.

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16. The method of claim 9, wherein the hydrogel material is introduced into a sub-mammary incision to thereby afford breast augmentation.

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17. The method of claim 9, wherein the hydrogel material is introduced into or onto the body as a tissue engineering substrate.

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18. The method of claim 9, wherein the hydrogel material is applied to a burn site as part of a burn dressing.--

REMARKS

This application is a divisional of U.S. Serial No. 08/855,499 filed May 13, 1997. Copies of the originally filed Declaration and Power of Attorney, the Revocation and Appointment of New Agent, and a Correspondence Address Change are submitted herewith. Kindly delete Jun Chen as a co-inventor of the presently claimed subject matter.

The title has been changed to better reflect the subject of the present application.